United States Department of Agriculture
Rural Development
Rural Business–Cooperative Service • Rural Housing Service • Rural Utilities Service
Washington, DC 20250

September 11, 1997

Office of the Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

To whom it may concern:

The Rural Utilities Service (RUS) hereby reports *ex parte* representations to members of the Federal Communications Commission (Commission) staff on September 3, 1997, at Commission offices at 2100 M Street. The meeting was open to the public and is one of a series of regular weekly meetings being held by Commission staff to analyze cost models as they relate to universal service support (CC Docket Nos. 96-45 and 97-160). The focus of the meeting was customer location.

A list of attendees for the meeting is enclosed. We obtained this list from Mr. Charles Keller of the Commission.

The following contributions were offered by the RUS attendees at this meeting. We have added details in some cases to ensure clarity.

Geocoding of Rural Households

The sponsors of the Hatfield model discussed their attempts to model the customers' actual location by using a direct mail database. According to the slides prepared by the Hatfield sponsor, households in 77% of all rural census blocks are geocoded. Other information on their slides showed that only 44% of rural households are within that 77% of geocoded census blocks. If we understand these slides correctly, this means that no more than 34% of rural households are geocoded.

The RUS is concerned that with such low representation of geocoded households in rural areas, the model will still have to rely predominately on modeling assumptions of customer location. Even in census blocks where some but not all rural customers are geocoded, there can be no assurance that the sample represents the block proportionally. A better database of customer location geocodes must be found before the use of actual locations will represent an improvement in resolution for rural areas.

Resolution of the Model

In reaction to discussion about excessive computer run-times, RUS suggested that model resolution need not be constant, i.e. the model could analyze the low density areas with greater precision than the high density areas. Averaging over a large sample is not harmful when there is consistency within the sample.

On the other hand, when a sample is not consistent, such as may be the case in a census block group or census block with large area or low density, averaging will obscure details such as the dispersion of customers and therefore could be very harmful. This suggests that the resolution does not need to be a constant in the model. This fact can be used to make the model run more efficiently, while maintaining the needed resolution to provide accurate cost estimation in low density areas.

In any case, concerns about model complexity and computer run times are trivial compared to the importance of the accuracy of these models.

The RUS also questions the aggregation of cost to the wire center level. As model sponsors are raising the resolution of the models by proposing to use geocoded customer location, they still talk of aggregating the costs to the wire center level. This causes the models to lose most of the benefits of their higher resolution. Competition will come to an area line by line. Rural costs are highly variable over an exchange area. Support needs to be accurately targeted over a rural exchange which includes higher density and lower density areas. Otherwise, support in some areas (higher density) will be a little too high while support in other areas (lower density) will be a lot too low.

These errors in support levels will no longer average once competition comes to an area. Competitors will probably serve the higher density customers first, so some carriers will lose customers which may have been adequately or more-than-adequately supported, while they retain customers which are inadequately supported. If the proxy models calculate support on a line-by-line basis, or at least on a census block-by-census block basis, support should be adequate for all customers.

The models should also have a mechanism for adjusting support levels to compensate for an Eligible Telecommunications Carrier's (ETC) losing market share. If an ETC loses its business customers, and some of its high density customers, universal service in rural areas will be threatened.

Plant Layout

Neither model is specifically linking plant construction to roads. The RUS stated that plant is not built "as the crow flies" because it is cost prohibitive. If the models are going to persist in placing both feeder and distribution plant along hypothetical routes that do not follow roads, additional costs are going to have to be included in plant estimates.

The cost of cross-country rights-of-way will become a major additional cost of plant. Landowners in rural America regard their land as a revenue-earning asset. Whether they farm it, graze it, subdivide it, lease it, or simply hold it, they know that land is money. They have high expectations that any use of their land by another party will provide them a substantial return. As a result, as early as the 1970's, RUS knew that private right-of-way, even just inside the fence along roadways, was becoming unaffordable. Public right-of-way remained essentially free-of-charge, although with time states and local governments imposed conditions upon its use. In addition, landowners know that when they allow a rural utility to use their land for cable placement, it is just the beginning. The utility will travel the right-of-way occasionally for maintenance of its plant, and eventually will place more plant along the right-of-way. Many rural landowners, particularly farmers and ranchers, refuse their RUS-financed LECs any access, even though these LECs are member-owned cooperative-type organizations.

A second cost that would need to be added is the cost of clearing and site preparation. Highway rights-of-way are cleared and maintained by highway departments. Utilities using them do not have to bulldoze woods or smooth bluffs to run their cable. When they reach rivers, they can attach to bridges, rather than constructing elaborate aerial crossings such as pipelines must do.

Another cost involved with private right-of-way is the legal cost of negotiating agreements and filing them with appropriate courts. RUS borrower LECs using significant amounts of private right-of-way have had to keep a right-of-way specialist with the plow train during construction because many landowners forget that they have granted right-of-way, or change their minds when they see the aftermath of the construction.

A further complication with proposing that feeder and distribution plant be run "as the crow flies" is that no one, except perhaps the cross-country gas and oil pipeline industry, has cost information for this type of construction. No RUS borrower LEC runs plant in this manner. The most efficient construction projects are the ones that involve a minimum of private right-of-way.

The RUS appreciates the opportunity to attend these weekly meetings.

Sincerely,

ORREN E. CAMERON III
Director
Telecommunications Standards Division

Enclosure

cc: Charles Keller, FCC
Robert Loube, FCC
Richard N. Clarke, AT&T
Glenn Brown, US WEST
Rowland L. Curry, Texas PUC

From: Charles Keller
To: proponents
Date: 9/3/97 5:29pm
Subject: Meeting attendees

This is a list of the attendees at the 1:00 meeting today, for purposes of the Hatfield team's ex parte filing:

Natalie Wales, FCC
Bob Loube, FCC
John Haslig, RUS
Ed Cameron, RUS
Gary Allan, RUS
Jackie McGirr-Conti, BA
Peggy Lonergan, BA
Ed Barber, BA
Vaikunth Gupta, FCC
Bill Sharkey, FCC
David Porter, WorldCom
Mark Kennet, FCC
Mike Lieberman, ATT
Kevin Landis, PNR
Chris Frentrup, MCI
Roger Sherman, Sprint PCS
Jon Chambers, Sprint PCS
Christine Antis, PNR
Pamela Fusting, NTCA
Whit Jordan, Bell South
Glenn Brown, GSW
Brian Staihr, Sprint
Warren Hannah, Sprint
Chris Babb, NECA
Rowland Curry, TX PUC, Jt. Bd. staff
Chuck Keller, FCC
C. Anthony Bush, FCC
Charlie Bolle, SD PUC, Jt. Bd. staff
BCPM People

Phone:
Bridget Duff, FL PUC, Jt Bd staff
David Dowds, Fl. PUC, Jt Bd staff
Lori Kenyon, AK PUC, Jt. Bd staff
Barry Payne, IN Ofc of Consumer Counsel, Jt Bd staff
Peter Cassidy, NorTel
Joe Ebs, GTE
Tad Burnet, GTE
John Schrotenboer, SBC
Melissa Markely, Economics & Technology
BCPM people